## Propagating Multi-Patterned Satsuki

By Jim Trumbly—Roseville, California

Ed. Note. thanks to Don Voss: To learn much more about Satsuki history, hybrids, families, and terminology, see Jim Trumbly's 2001 article in The Summer 2001 issue of The Azalean. A longer list of references to Satsuki articles and research will be shown in a complete list of Azalean references in a sidebar in the Fall 2016 issue of The Azalean as additional information with another article about Satsuki. These articles are available on the ASA website through the Archives feature and can be viewed as a pdf, ordered, or downloaded, Also note, that while Jim is focusing on Satsuki propagation for specific characteristics of blooms on Satsuki azaleas here, his approach could be used with selecting propagation material from any azalea variety that can have multi-patterned blooms.

Those who enjoy propagating new plants follow methods that have been well described in several places. However, those who have tried propagating from multi-patterned Satsuki may have experienced less than satisfactory results. By that I mean the resulting clones do not develop into plants that exhibit the full range of flower patterns shown by the parent plant. This can be avoided by understanding the dominance of different flower patterns and then incorporating that into the shoot-selection step in propagation.

Propagators who are not concerned about the results and just enjoy making new plants with attractive flowers needn't be concerned. However, the resulting plants would not be the same as the named cultivar. For example, a shoot taken from the multi-patterned 'Kirin-no-Kagami' that developed into a plant with only one or two types of flowers would not be considered a 'Kirin-no-Kagami', at least to the Japanese or Satsuki collectors here in the U.S.

More significantly, I have been to several commercial nurseries that sell named Satsuki that are not true to the



▲ Figure 1. Concentric Patterns: a- sokojiro, b- fukurin, c- tamafu, with faint spot in center of petals, d- tsumabeni with color at the outer end of petals.

name because of propagation practices. This may be because they are unaware of the importance of flower pattern dominance in propagation, or they are indifferent to it and don't invest the extra effort.

## Flower Pattern Dominance

Written descriptors of the many different Satsuki flowers include striped, speckled, streaked, sectored, sanded, selfed, solid, white centered, bordered, those with irregular white margins, and more. The Japanese have named and described over 20 different patterns. Many of these are illustrated in Galle. [See Sources List below.] However, from the standpoint of propagation it is not necessary to learn every flower pattern, because all flowers can be simplified into three hierarchical groups of dominance. These are, from most dominant to least: 1) solid colored selfs, 2) concentric patterns, and 3) radial-patterned flowers.

Solids are the type of flowers on non-patterned azaleas. When they occur among the flower types of multi-patterned Satsuki, they are referred to as selfs. They are the strongest flower type and over time can increase their dominance on a plant. The exception to this is an all-white flower, which is nearly always the least dominant.

Concentric patterns are very common in most multi-patterned Satsuki and dominant over radial-patterned forms. They consist of coloration in circular patterns on a white or off-white base. These are illustrated in Figure 1, along with the Japanese terminology.

The concentric flower sokojiro has a white or off-white center and colored margin (see Figure 1-a.) It is common in many multi-patterned Satsuki. Because of its dominance, some named Satsuki consist of just sokojiro flowers with an occasional self. A few of the commonly seen sokojiro cultivars here in the U.S. are 'Seidai', 'Daishuhai', 'Shugetsu', and 'Kikoshi'. Two of the twelve groupings



▲ Figure 2. Radial Patterns: A few of the many *shibori* types of c- a type of *shibori* consisting of fine particles or dots, often referred to as "sanded," d- plants with a large stripe and sector should be avoided in propagation.

▼ Figure 3. Two *jiai* tints on 'Mibu-no-Hana'. Shoots from *jiai* shibori flowers are suitable for clonal propagation.



of Satsuki in the Satsuki Jiten, 2010, are devoted to sokojiro cultivars; one for the reds and one for the purples.

Fukurin is also a very strong concentric flower and one that is especially important to learn for purposes of propagation because it can be more difficult to spot. They are often described as flowers with an irregular white edge, or brushed white edge, as shown in Figure 1-b. Only a few fukurin cultivars have been named by the Japanese, but they occur often in multi-patterned Satsuki. 'Nyohozan' is a fukurin cultivar found here in the U.S.

Two other more frequently occurring concentric patterns are *tamafu* with a lighter color spot in the center of each petal, and *tsumabeni*, which translates to

"red fingernail," and has a darker color at the outer tips of petals. (See Figures 1-c and 1-d.)

Radial-patterned flowers are the least dominant and are referred to as *shibori*. They consist of various colorations that align in a direction from the center of a flower out toward the petal margins like the spokes of a wheel. Fine particle dots on the petals, called "sanding" are also a type of *shibori*. The Japanese have described many of these, four of which are shown in Figure 2.

When propagating multi-patterned Satsuki, shoots taken from radial-patterned flowers will develop into clones that exhibit the full range of flower patterns seen in the mature parent plant. Shoots taken from concentric-patterned flowers will usually only develop plants that exhibit the concentric pattern and possibly an occasional solid-colored self flower. Shoots taken from self flowers will develop plants without patterns.

## **Shoot Selection**

Because of flower dominance in multi-patterned Satsuki, propagation requires a two-step shoot selection approach instead of just one. The first step is to mark the appropriate flowers when the parent plant is in bloom. The second is to take cuttings from the new shoots that develop just below those flowers once they are ready for collecting, typically four to six weeks later. My approach is to evaluate the overall arrangement of flower types when the plant is in full bloom, looking for branches producing mostly radial-patterned flowers. If flowers are thoroughly mixed with selfs, concentric-patterned, and radialpatterned on most branches, then I mark the stems of individual flowers or a branchlet with several suitable flowers.

I try to mark flowers from all parts of the plant to increase chances for success. This is especially so when I want to take shoots from a plant I haven't had the opportunity to see and mark when in bloom. I consider this a "blind selection," and, in searching for rare Satsuki it has sometimes been my only choice.

Some Satsuki cultivars are *jiai* types. Jiai means "in between" in reference to the base color of white shifting to a tint of color between white and the color of the flower's markings. Two of the twelve groupings in the *Satsuki Jiten* are devoted to them. These flowers often look similar to *fukurin* flowers particularly when a flower has only a few small radial marks. *Jiai* flowers are acceptable flowers to choose for propagation. Some Satsuki even exhibit two different *jiai* tints. For these I may try selecting shoots from flowers of both tints and mark them separately using different markers. See Figure 3.

I use twist ties like the kind used for bread bags to mark stems and branches with radial flowers. See Figure 4. I have several colors but typically use yellow or white for contrast, which makes them easier to find later. I do not twist them but just cross the ends to form a loose loop. On occasion I use more than one color of twist tie if I am marking different kinds of flowers such as the two *jiai* types mentioned previously. I have also used a different color twist tie to mark a pure white flower when it occurs on a Satsuki cultivar known for rarely producing one.

I am a small scale propagator and usually only take one shoot per flower and a total of only ten or twelve shoots per Satsuki. My objective is to develop only a few clones that have the full range of patterns in the parent plant.

There are two things to be careful of in selecting flowers to mark: 1) avoid *shibori* flowers with wide stripes and sectors, since the shoot that is taken later may come from a part of the stem that carried the color portion of the flower pattern producing only solid-colored flowers, as shown in Figure 2-d; and 2) some Satsuki cultivars also produce individual flowers that are a combination of a concentric pattern and a radial-patterned. These should be avoided for the same reason as above. See Figure 5.

Each year I collect shoots from about a dozen multipatterned Satsuki. By taking the time to mark flowers earlier in the process I have had great success. But even in doing this there are usually a few that turn out as *fukurin*, *sokojiro*, or solid colored plants. None-the-less they are often beautiful in their own right; I just wouldn't call them by their Satsuki name without writing on the tag in parenthesis following the name *fukurin*, *sokojiro*, or self.

Jim Trumbly is a Satsuki enthusiast and a member of ASA since the early 1990s. He belongs to Satsuki Aikokai Bonsai Association of Sacramento. He lives in Roseville, California, and has 150 Satsuki and other azaleas on his half-acre property.



▲ Figure 4. Twist tie is used to mark appropriate flowers during blooming.

▼ Figure 5. Avoid combinations of flowers of radial and concentric patterns. The *fukurin* influence changes the blotch color, making it easier to spot.



Four sources Jim Trumbly used for this article:

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